

CLAIMS

1. A current reduction circuit that reduces offset current from at least one driver circuit, the current reduction circuit comprising:
 - 5 circuitry that measures the offset current and produces a measurement current; and
 - circuitry that receives the measurement current and responds by maintaining an auto kine bias measurement voltage within a predetermined range.
- 10 2. The current reduction circuit set forth in claim 1, wherein the at least one driver circuit comprises three cathode ray tube (CRT) driver circuits, each of the CRT driver circuits corresponding to a color beam in a CRT display device.
3. The current reduction circuit set forth in claim 2, wherein each of the CRT
15 driver circuits comprises a Philips TDA6120 CRT drive integrated circuit.
4. The current reduction circuit set forth in claim 1, wherein the auto kine bias measurement voltage is provided to a Toshiba TA1316AN integrated circuit.
- 20 5. The current reduction circuit set forth in claim 4, wherein the auto kine bias measurement voltage corresponds to an offset current that is within the dynamic range that may be processed by the Toshiba TA1316AN integrated circuit.
6. The current reduction circuit set forth in claim 1, wherein the predetermined
25 range is between about -0.5 volts and 3.0 volts.
7. The current reduction circuit set forth in claim 1, wherein the circuitry that measures the offset current comprises a circuit that generates a reference voltage that is compared to a signal corresponding to the offset current to generate the
30 measurement current.
8. The current reduction circuit set forth in claim 1, wherein the current reduction circuit comprises a portion of a television.

9. The current reduction circuit set forth in claim 1, wherein the offset current has a maximum range of about +/- 90 microamperes.

10. A cathode ray tube (CRT) display device that is adapted to display images,
5 comprising:

a CRT;

three driver circuits, each of the driver circuits being associated with a color
beam adapted to create an image on the CRT, each of the three driver
circuits producing a signal indicative of an offset current;

10 a circuit that generates a reference voltage;

a differential amplifier that receives the reference voltage and the signal
indicative of the offset current from the three driver circuits and
responds by producing a differential output that is proportional to the
difference between the reference voltage and the signal corresponding
15 to the offset current from the three driver circuits; and

circuitry that receives the differential output and responds by maintaining an
auto kine bias measurement voltage within a predetermined range.

11. The CRT display device set forth in claim 10, wherein each of the driver
20 circuits comprises a Philips TDA6120 CRT drive integrated circuit.

12. The CRT display device set forth in claim 10, wherein the auto kine bias
measurement voltage is provided to a Toshiba TA1316AN integrated circuit.

25 13. The CRT display device set forth in claim 12, wherein the auto kine bias
measurement voltage corresponds to an offset current that is within the dynamic
range that may be processed by the Toshiba TA1316AN integrated circuit.

14. The CRT display device set forth in claim 10, wherein the predetermined
30 range is between about -0.5 volts and 3.0 volts.

15. The CRT display device set forth in claim 10, wherein the CRT display device
comprises a portion of a television.

16. The CRT display device set forth in claim 10, wherein the offset current from the three driver circuits has a total maximum range of about +/- 90 microamperes.

17. A method of reducing offset current from at least one driver circuit, the method comprising:

measuring an offset current associated with the at least one driver circuit;
producing a measurement current in response to the measurement of the

offset current;

employing the measurement current to maintain an auto kine bias

measurement voltage within a predetermined range.

18. The method of reducing offset current set forth in claim 17, comprising generating a reference voltage.

19. The method of reducing offset current set forth in claim 18, comprising comparing the reference voltage to a signal proportional to the offset current.

20. The method of reducing offset current set forth in claim 17, wherein the recited acts are performed in the recited order.